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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/732,942

12/11/2003

Rita L. Faunce

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05/16/2008

PATENT ADMINISTRATOR

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EXAMINER

BERHANU, SAMUEL

ART UNIT

PAPER NUMBER

2838

MAIL DATE

DELIVERY MODE

05/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/732,942	Applicant(s) FAUNCE ET AL.	
	Examiner SAMUEL BERHANU	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 12/11/2003 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. International Search Report.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

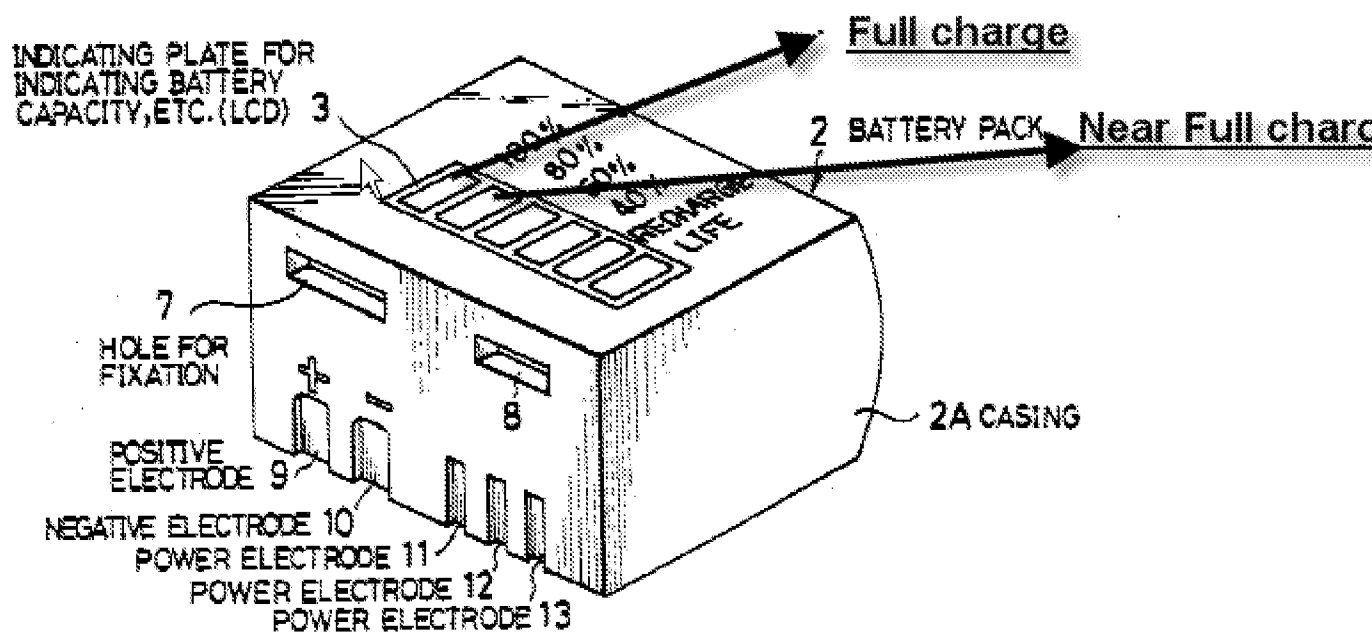
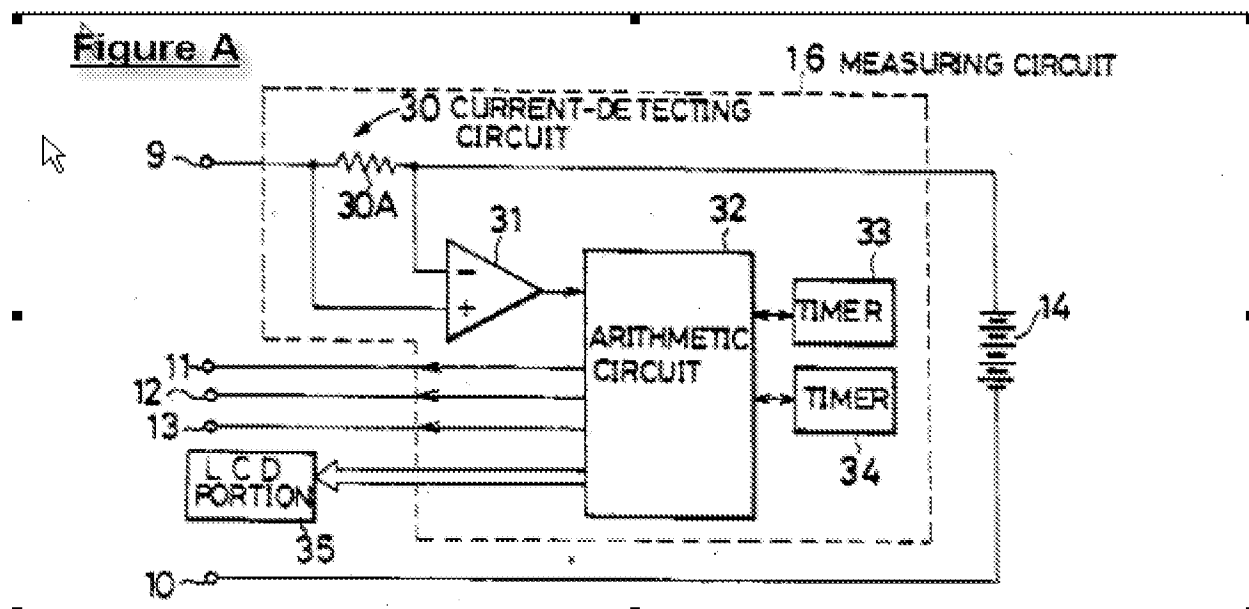
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2 and 4-7 are rejected under 35 U.S.C. 102(b) as anticipated by Nagai (US 5,216,371) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ng et. al. (US 2005/0089750), and in view of Sasaki et. al. (US 5,172,044) (hereinafter Kotlow)

Regarding Claim 1, Nagai discloses in Figures 1-9, a battery charge indicator for sensing and indicating a near full state of charge of a battery, the battery charge indicator comprising:-

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**Figure B**

a sensing circuit (30) for sensing charging current to said lithium ion battery, based solely on the charging current to the battery and providing a first charge indication Signal (element 3, LCD see figure 3) independent of whether said lithium ion battery in a constant current or constant voltage charging state and independent of the voltage of said lithium ion battery (**Nagai discloses in Figure 1 element 1 and Column 3, lines 56-61 that the battery 14 is a rechargeable battery, since Lithium battery is a rechargeable battery, it is believed that Lithium battery is disclosed implicitly by Nagai**) , when said charging current is less than a first predetermined value, said first predetermined value selected to be greater than the value of charging current of said lithium ion battery in a fully charged state (100%) said sensing circuit generating a first charge indication signal (**80% indication signal see figure B above**) when said charging current is less than or equal to said first predetermined value, said first predetermined value representing a near full state of charge (**100% charge state of the battery**) of said lithium ion battery and an indicator (**LCD indicator to show the 80% charge of the battery see figure B above**) responsive to said first charge indication signal for providing an indication when said lithium ion battery is at a near full state of charge (**the indication of 80%**).

As the 103 alternative for Claim 1, assuming that Lithium battery is not disclosed. Ng et. al. discloses in paragraphs 0058 and 0059 that Lithium battery is a rechargeable battery. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to use Ng et. al.'s Lithium battery in Nagai 's battery back

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Since it offers advantages of “non --liquid “ battery and flexibility configuration (see paragraph 0060).

Sasaki discloses in Figures 1-10, and Column 3, lines 49-53, current detecting means and charging current displaying means current sensor, charge indication signal based solely on the charging current

More specifically, it is an object of the present invention to provide a charging amount ~~display~~ apparatus in which a charging amount can be displayed by a simplified circuit arrangement utilizing only a ~~charging current detecting~~ circuit.

It would have been obvious to a person having ordinary skill in the art at the time of the invention to add charge current monitoring and displaying means as taught by Sasaki in Nagi in order to have a battery charging monitor circuit with high accuracy .

Regarding Claim 2, Nagai discloses the battery charge indicator wherein said indicator includes a first visual indication (see figure 3, LCD).

Regarding Claim 4, Nagai discloses, where to said sensing circuit is configured to sensing other charging states of said battery, other than stand near full state of charge.

Regarding Claim 5, Nagai discloses in Figures 1-9, wherein said sensing circuit is configured to sense when the battery charging current is less than said first predetermined value and generating a second charge indication signal representing that said charging current is at a charge state other than said near fully charged state.

Regarding Claim 6, Nagai discloses in Figures 1-9, including a second visual indication (figure 3 and see figure B above).

Regarding Claim 7, Nagai discloses in Figures 1-9, wherein said sensing circuit is configured to generate one or more charge indicating signals selected from the group

indicating signals from the group indicating that the state of charge of said battery is at a size of charger near full charge; at full charge or between said near charge state and said fully charge state (please see figure B above).

4. Claims 3 and 8 –9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai in view of Sasaki and in view of Matsunaga et. Al. (US 6,771,043).

Regarding Claims 3 and 8, Nagai does not disclose explicitly, wherein said second visual indication is a second LED. However, Matsunaga et. al. discloses in Figure 16, elements 38a and 38b an Led. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use LEDs in Nagai's battery pack as taught by Matsnaga et al. in order to inform the user the remaining battery capacity (Matsunaga et. al. Column 30, lines 21-45).

Regarding Claim 9, Matsunaga et. al. discloses in Figure 16 and Column 28, lines 43-55, wherein sensing circuit is configured to define fast, second and third charging states and wherein said first LED is a red LED and said second LED is a green LED and in said first state, said red LED is illuminated and in said second state both said red and green LEDs are illuminated and in said third state, only said green LED is illuminated (see Column 28, lines 43-55).

Response to Arguments

5. Applicant's arguments with respect to claims have been considered but but are moot in view of the new ground(s) of rejection.

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAMUEL BERHANU whose telephone number is (571)272-8430. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm Ullah can be reached on 571-272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Adolf Berhane/
Adolf Berhane
Primary Examiner
Art Unit 2838

/S. B./